

Appl. No. 09/831,281
Amdt. Dated October 14, 2005
Reply to Office action of August 19, 2005
Attorney Docket No. P09816/027566-028
EUS/JJP/05-6164

Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of transferring signalling messages between an Internet Service Provider (ISP) and an exchange of a telecommunications network for the purpose of allocating and controlling circuit switched communication channels between the exchange and the ISP wherein said circuit switched communication channels are established between the exchange and the ISP and wherein said signaling messages for allocating and controlling said circuit switched communication channels are communicated between said switch and said ISP via a signaling gateway, the method comprising:

maintaining a record at ~~a said signaling gateway~~ identifying said circuit switched communication channels ~~associated with~~ established between said exchange and ~~allocated to~~ said ISP;

routing said signalling messages via said signaling gateway which provides for conversion of messages between a first transmission protocol used in the telecommunications network and a second transmission protocol used in the network which connects the signalling gateway to the ISP; and

for each of said signalling messages message received at the signalling gateway from the ISP, confirming the right of that ISP to control a circuit switched communication channel identified in said each of said signalling messages ~~the message~~ by reviewing said record.

2. (Cancelled)

3. (Previously Presented) A method according to claim 1, wherein the telecommunication network comprises a Signalling System No. 7 (SS7) based signalling network which is interfaced to the ISP via the signalling gateway.

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4. (Previously Presented) A method according to claim 3, wherein the network coupling the signalling gateway to the ISP is an IP based network
5. (Previously Presented) A method according to claim 4, wherein the signalling gateway provides a conversion between at least the Message Transfer Part protocols of the SS7 network and the IP based protocols enabling ISUP messages to be transferred, transparently, between the exchange and the ISP.
6. (Previously Presented) A method according to claim 4, wherein the ISP from which a signalling message originates is identified at the signalling gateway by virtue of the source IP address associated with the IP datagram in which the message is delivered to the gateway.
7. (Previously Presented) A method according to claim 4, wherein each of the ISPs connected to a given signalling gateway is allocated a unique Point Code in the signalling network of the telecommunications network, Point Codes being included in the header of a signalling message to indicate the destination and source of the message, and the signalling gateway screens messages received from an ISP to confirm that the source Point Codes contained therein correspond to the actual ISPs from which they originated.
8. (Previously Presented) A method according to claim 4, wherein the ISP from which a signalling message originates is identified by virtue of the input port/device of the signalling gateway at which the message arrives.
9. (Currently Amended) Apparatus for transferring signalling messages between an Internet Service Provider (ISP) and an exchange of a telecommunications network for the purpose of allocating and controlling circuit switched communication channels, said circuit switched communication established between the exchange and

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the ISP and wherein said signaling messages for allocating and controlling said circuit switched communication channels are communicated between said switch and said ISP via a signaling gateway, the apparatus comprising:

a signalling gateway coupled between a signalling network of said telecommunications network and a network connected to said ISP and further arranged to:

maintaining a record identifying of said circuit switched communication channels associated with established between said exchange and further allocated to said ISP;

routing signalling messages between said exchange and said ISP by converting said signalling convert messages between a first transmission protocol used in the telecommunications network and a second transmission protocol used in the network which connects the signalling gateway to the ISP; and

for each of said signaling messages message received at the signalling gateway from the ISP, ~~to confirm~~ confirming the right of that ISP to control a circuit switched communication channel identified in said each of said signaling messages ~~the message~~ by reviewing said record.